

Training – 9.00 a.m. – 5.30 p.m.

Introduction to Building Automation via BACnet

Basics of interoperable building automation (BA)

- Introduction to building automation and terminology e.g. “common” data points, data types and functional levels
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BACnet, the global BA network standard (why BACnet?)

- The BACnet committee with ISO/CEN servicing contract: ASHRAE SSPC 135
 - Introduction of the world standard EN ISO 16484-5
 - BACnet world-wide: interest groups and their web pages: BACnet Interest Group Europe, BI, BTL
 - Trade fairs with BACnet communal booths, reference projects
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BACnet DATA Link Layer (Whereby is communicated?)

- BACnet in the ISO/OSI reference model
 - The planned standardised data communication methods (transport protocol as a reference to standards)
 - Representation of the network topologies, router and half router
 - Explanation of a BACnet network example
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“The BACnet language” and its components (How does BACnet work?)

- Introduction to standardised object types
 - Presentation on communication services with access functions and groups
 - Special functions like value-discrete transmission (COV – Change of VALUE) based on threshold value
 - BACnet incident and alarm management, object-internal and rule-based messages (Intrinsic and Algorithmic Change Reporting), message classification
 - BACnet procedures for command prioritisation
 - Example of an operating calendar and a schedule
 - Data recording with the help of the BACnet trendlog object
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The (automatic) data flow control in the network

- Referencing BACnet objects
- The application of object names
- Project rationalisation and “offline” configuration
- Using the EDE-file
- Project overview using B-PAT file

Integration of BACnet in IT environments

- BACnet communication in an Ethernet/IP environment
 - Use of BACnet tunneling routers
 - Special situations with BBMDs and foreign devices
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Testing and demonstrating the conformity of BACnet products

- Manufacturer’s declaration “PICS” and “Epics”
 - Working with the interoperability of “BIBB” building blocks
 - Presentation on the device profiles and device classes
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BACnet, the overall BA network standard

- Possibilities for manufacturer-specific extensions
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